



BORNE CHEMICAL COMPANY

NJD002167237

**THIS DOCUMENT IS CURRENTLY CLASSIFIED
NON-CONFIDENTIAL BY EPA AS THE ABOVE SITE
DOES NOT QUALIFY FOR FURTHER REMEDIAL
ACTION AT THIS TIME**

DECLASSIFIED

DCN: START-02-F-00822

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SITE SUMMARY AND RECOMMENDATION

A recommendation of **NO FURTHER REMEDIAL ACTION PLANNED (NFRAP)** is given for the Borne Chemical Company (Borne) site. The site is an inactive chemical manufacturing and blending facility located in an industrial area of Elizabeth, Union County, New Jersey. From 1959 to 1979 portions of the facility, primarily in the Tank Farm Area, were leased to various companies for temporary product and waste storage. Groundwater within 4 miles of the site is not used for drinking water purposes. The nearby population receives its drinking water from sources greater than 4 miles from the site.

The Arthur Kill, adjacent to the site, is a high-flow, coastal tidal water body. In August 1981, Site Inspection personnel noted the discharge of an oily substance to the Arthur Kill through two pipes along the site bulkhead; the pipe diameters were 4 inches and 18 inches. No surface water or discharge samples are known to have been collected. Although the downstream surface water bodies are utilized as fisheries, and are known to include wetlands and habitats of federally-listed and state-listed endangered/threatened species, documentation of actual contamination of the fisheries and/or sensitive environments due to site activities is unlikely due to the tidal and heavily industrial nature of the Newark Bay Complex. In addition, certain bans, restrictions and health advisories regarding consumption of fishes taken from these waters are in effect.

The site is fenced and has locked gates to inhibit property access. There are no residences, schools, or day care facilities within 200 feet of the site boundary; eight people work within 200 feet of the property boundary. Previous state-directed **PRP** remedial actions include the establishment of site security (i.e., fence with locked gates); drum, container, and aboveground storage tank removal; underground transfer pipe removal; soil capping; and an asbestos abatement project. These activities have essentially mitigated environmental threats due to fire, explosion, and direct contact associated with on-site contamination.

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HRS DOCUMENTATION RECORD
BORNE CHEM CO (aka, Coastal Environmental Services) - 05/12/97

1. Site Name: BORNE CHEM CO (aka, Coastal Environmental Services)
(as entered in CERCLIS)
2. Site CERCLIS Number: NJD002167237
3. Site Reviewer: K. Campbell
4. Date: 05/06/97
5. Site Location: Elizabeth, Union, New Jersey
(City/County, State)
6. Congressional District: 13
7. Site Coordinates: Multiple

Latitude: 40°38'15.0"

Longitude: 074°11'54.0"

	Score
Ground Water Migration Pathway Score (Sgw)	0.08
Surface Water Migration Pathway Score (Ssw)	1.65
Soil Exposure Pathway Score (Ss)	0.02
Air Migration Pathway Score (Sa)	12.57

site Score	6.34
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NOTE

Site names, and references to specific parcels or properties, are provided for general identification purposes only. Knowledge regarding the extent of sites will be refined as more information is developed during the RI/FS and even during implementation of the remedy.

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GROUND WATER MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release to an Aquifer Aquifer: Unconsolidated depos		
1. Observed Release	550	0
2. Potential to Release		
2a. Containment	10	10
2b. Net Precipitation	10	6
2c. Depth to Aquifer	5	3
2d. Travel Time	35	5
2e. Potential to Release [lines 2a(2b+2c+2d)]	500	140
3. Likelihood of Release	550	140
Waste Characteristics		
4. Toxicity/Mobility	*	1.00E+02
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	10
Targets		
7. Nearest Well	50	0.00E+00
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	0.00E+00
8d. Population (lines 8a+8b+8c)	**	0.00E+00
9. Resources	5	5.00E+00
10. Wellhead Protection Area	20	0.00E+00
11. Targets (lines 7+8d+9+10)	**	5.00E+00
12. Targets (including overlaying aquifers)	**	5.00E+00
13. Aquifer Score	100	0.08
GROUND WATER MIGRATION PATHWAY SCORE (Sgw)	100	0.08

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
BORNE CHEM CO (aka, Coastal Environmental Services) - 05/12/97

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors DRINKING WATER THREAT	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release by Overland Flow		
2a. Containment	10	10
2b. Runoff	25	1
2c. Distance to Surface Water	25	25
2d. Potential to Release by Overland Flow [lines 2a(2b+2c)]	500	260
3. Potential to Release by Flood		
3a. Containment (Flood)	10	10
3b. Flood Frequency	50	25
3c. Potential to Release by Flood (lines 3a x 3b)	500	250
4. Potential to Release (lines 2d+3c)	500	500
5. Likelihood of Release	550	500
Waste Characteristics		
6. Toxicity/Persistence	*	1.00E+04
7. Hazardous Waste Quantity	*	100
8. Waste Characteristics	100	32
Targets		
9. Nearest Intake	50	0.00E+00
10. Population		
10a. Level I Concentrations	**	0.00E+00
10b. Level II Concentrations	**	0.00E+00
10c. Potential Contamination	**	0.00E+00
10d. Population (lines 10a+10b+10c)	**	0.00E+00
11. Resources	5	5.00E+00
12. Targets (lines 9+10d+11)	**	5.00E+00
13. DRINKING WATER THREAT SCORE	100	0.97

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

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SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
BORNE CHEM CO (aka, Coastal Environmental Services) - 05/12/97

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors HUMAN FOOD CHAIN THREAT	Maximum Value	Value Assigned
Likelihood of Release		
14. Likelihood of Release (same as line 5)	550	500
Waste Characteristics		
15. Toxicity/Persistence/Bioaccumulation	*	2.00E+08
16. Hazardous Waste Quantity	*	100
17. Waste Characteristics	1000	320
Targets		
18. Food Chain Individual	50	0.00E+00
19. Population		
19a. Level I Concentrations	**	0.00E+00
19b. Level II Concentrations	**	0.00E+00
19c. Pot. Human Food Chain Contamination	**	3.41E-01
19d. Population (lines 19a+19b+19c)	**	3.41E-01
20. Targets (lines 18+19d)	**	3.41E-01
21. HUMAN FOOD CHAIN THREAT SCORE	100	0.66

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** Maximum value not applicable.

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 SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT SCORESHEET
 BORNE CHEM CO (aka, Coastal Environmental Services) - 05/12/97

SURFACE WATER OVERLAND/FLOOD MIGRATION COMPONENT Factor Categories & Factors ENVIRONMENTAL THREAT	Maximum Value	Value Assigned
Likelihood of Release		
22. Likelihood of Release (same as line 5)	550	500
Waste Characteristics		
23. Ecosystem Toxicity/Persistence/Bioacc.	*	5.00E+08
24. Hazardous Waste Quantity	*	100
25. Waste Characteristics	1000	320
Targets		
26. Sensitive Environments		
26a. Level I Concentrations	**	0.00E+00
26b. Level II Concentrations	**	0.00E+00
26c. Potential Contamination	**	7.50E-03
26d. Sensitive Environments (lines 26a+26b+26c)	**	7.50E-03
27. Targets (line 26d)	**	7.50E-03
28. ENVIRONMENTAL THREAT SCORE	60	0.01
29. WATERSHED SCORE	100	1.65
30. SW: OVERLAND/FLOOD COMPONENT SCORE (Sof)	100	1.65

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

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SOIL EXPOSURE PATHWAY SCORESHEET
BORNE CHEM CO (aka, Coastal Environmental Services) - 05/12/97

SOIL EXPOSURE PATHWAY Factor Categories & Factors RESIDENT POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
1. Likelihood of Exposure	550	550
Waste Characteristics		
2. Toxicity	*	1.00E+04
3. Hazardous Waste Quantity	*	10
4. Waste Characteristics	100	18
Targets		
5. Resident Individual	50	0.00E+00
6. Resident Population		
6a. Level I Concentrations	**	0.00E+00
6b. Level II Concentrations	**	0.00E+00
6c. Resident Population (lines 6a+6b)	**	0.00E+00
7. Workers	15	0.00E+00
8. Resources	5	0.00E+00
9. Terrestrial Sensitive Environments	***	0.00E+00
10. Targets (lines 5+6c+7+8+9)	**	0.00E+00
11. RESIDENT POPULATION THREAT SCORE	**	0.00E+00

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** Maximum value not applicable.

*** No specific maximum value applies, see HRS for details.

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SOIL EXPOSURE PATHWAY SCORESHEET
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SOIL EXPOSURE PATHWAY Factor Categories & Factors NEARBY POPULATION THREAT	Maximum Value	Value Assigned
Likelihood of Exposure		
12. Attractiveness/Accessibility	100	5.00E+00
13. Area of Contamination	100	4.00E+01
14. Likelihood of Exposure	500	5.00E+00
Waste Characteristics		
15. Toxicity	*	1.00E+04
16. Hazardous Waste Quantity	*	10
17. Waste Characteristics	100	18
Targets		
18. Nearby Individual	1	1.00E+00
19. Population Within 1 Mile	**	1.30E+01
20. Targets (lines 18+19)	**	1.40E+01
21. NEARBY POPULATION THREAT SCORE	**	1.26E+03
SOIL EXPOSURE PATHWAY SCORE (Ss)	100	0.02

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

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 AIR PATHWAY SCORESHEET
 BORNE CHEM CO (aka, Coastal Environmental Services) - 05/12/97

AIR MIGRATION PATHWAY Factor Categories & Factors	Maximum Value	Value Assigned
Likelihood of Release		
1. Observed Release	550	0
2. Potential to Release		
2a. Gas Potential to Release	500	450
2b. Particulate Potential to Release	500	280
2c. Potential to Release	500	450
3. Likelihood of Release	550	450
Waste Characteristics		
4. Toxicity/Mobility	*	2.00E+03
5. Hazardous Waste Quantity	*	100
6. Waste Characteristics	100	18
Targets		
7. Nearest Individual	50	2.00E+01
8. Population		
8a. Level I Concentrations	**	0.00E+00
8b. Level II Concentrations	**	0.00E+00
8c. Potential Contamination	**	1.01E+02
8d. Population (lines 8a+8b+8c)	**	1.01E+02
9. Resources	5	5.00E+00
10. Sensitive Environments		
10a. Actual Contamination	***	0.00E+00
10b. Potential Contamination	***	2.00E+00
10c. Sens. Environments (lines 10a+10b)	***	2.00E+00
11. Targets (lines 7+8d+9+10c)	**	1.28E+02
AIR MIGRATION PATHWAY SCORE (Sa)	100	1.26E+01

* Maximum value applies to waste characteristics category.

** Maximum value not applicable.

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WASTE QUANTITY
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1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Surface Impoundment

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

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WASTE QUANTITY
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2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID	Surface Impoundment		
b. Source Type	Surface Impoundment		
c. Secondary Source Type	N.A.		
d. Source Vol. (yd3/gal)	Source Area (ft2)	0.00	875.00
e. Source Volume/Area Value	6.73E+01		
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)	0.00E+00		
g. Data Complete?	NO		
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)	0.00E+00		
i. Data Complete?	NO		
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)	6.73E+01		

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Benzene	< 2	YES	5.5E-02	ppm
Dichlorobenzene, 1,2-	< 2	YES	2.8E-02	ppm
Dichlorobenzene, 1,4-	< 2	YES	2.1E-02	ppm
Dichloroethane, 1,2-	< 2	YES	3.0E-01	ppm
Toluene	< 2	YES	3.9E-02	ppm
Trichloroethylene	< 2	YES	3.0E-03	ppm
Xylene, m-	< 2	YES	1.0E-02	ppm
Xylene, o-	< 2	YES	7.0E-03	ppm

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WASTE QUANTITY
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1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Contaminated Soil

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

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WASTE QUANTITY
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2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		Contaminated Soil	
b. Source Type		Contaminated Soil	
c. Secondary Source Type		N.A.	
d. Source Vol.(yd3/gal)	Source Area (ft2)	0.00	174240.00
e. Source Volume/Area Value		5.12E+00	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		5.12E+00	

Source Hazardous Substances	Depth (feet)	Liquid	Concent.	Units
Antimony	< 2	NO	8.0E+00	ppm
Arsenic	< 2	NO	4.5E+01	ppm
Benz(a)anthracene	< 2	NO	1.0E+04	ppm
Benzo(a)pyrene	< 2	NO	1.0E+04	ppm
Bis (2-ethylhexyl) phthalate	< 2	NO	1.0E+02	ppm
Cadmium	< 2	NO	8.4E+00	ppm
Chromium	< 2	NO	3.4E+02	ppm
Copper	< 2	NO	6.3E+02	ppm
Fluoranthene	< 2	NO	1.0E+04	ppm
Lead	< 2	NO	4.7E+02	ppm
Mercury	< 2	NO	2.0E+00	ppm
Methylene chloride	< 2	NO	1.2E+00	ppm
Nickel	< 2	NO	7.7E+01	ppm
Phenanthrene	< 2	NO	1.0E+04	ppm
Toluene	< 2	NO	8.5E-01	ppm
Trichloroethane, 1,1,1-	< 2	NO	5.8E-01	ppm
Zinc	< 2	NO	3.9E+02	ppm

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WASTE QUANTITY
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1. WASTESTREAM QUANTITY SUMMARY TABLE, SOURCE: Waste File

a. Wastestream ID	
b. Hazardous Constituent Quantity (C) (lbs.)	0.00
c. Data Complete?	NO
d. Hazardous Wastestream Quantity (W) (lbs.)	0.00
e. Data Complete?	NO
f. Wastestream Quantity Value (W/5,000)	0.00E+00

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WASTE QUANTITY
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2. SOURCE HAZARDOUS WASTE QUANTITY FACTOR TABLE

a. Source ID		Waste Pile	
b. Source Type		Waste Pile	
c. Secondary Source Type		N.A.	
d. Source Vol.(yd3/gal)	Source Area (ft2)	72.80	0.00
e. Source Volume/Area Value		2.91E+01	
f. Source Hazardous Constituent Quantity (HCQ) Value (sum of 1b)		0.00E+00	
g. Data Complete?		NO	
h. Source Hazardous Wastestream Quantity (WSQ) Value (sum of 1f)		0.00E+00	
i. Data Complete?		NO	
k. Source Hazardous Waste Quantity (HWQ) Value (2e, 2f, or 2h)		2.91E+01	

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WASTE QUANTITY

BORNE CHEM CO (aka, Coastal Environmental Services) - 05/12/97

3. SITE HAZARDOUS WASTE QUANTITY SUMMARY

No.	Source ID	Migration Pathways	Vol. or Area Value (2e)	Constituent or Wastestream Value (2f,2h)	Hazardous Waste Qty. Value (2k)
1	Surface Impoundment	GW-SW-SE-A	6.73E+01	0.00E+00	6.73E+01
2	Contaminated Soil	GW-SW-SE-A	5.12E+00	0.00E+00	5.12E+00
3	Waste Pile	GW-SW-SE-A	2.91E+01	0.00E+00	2.91E+01

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WASTE QUANTITY
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4. PATHWAY HAZARDOUS WASTE QUANTITY AND WASTE CHARACTERISTICS SUMMARY TABLE

Migration Pathway	Contaminant Values	HWQVs*	WCVs**
Ground Water	Toxicity/Mobility 1.00E+02	100	10
SW: Overland Flow, DW	Tox./Persistence 1.00E+04	100	32
SW: Overland Flow, HFC	Tox./Persis./Bioacc. 2.00E+08	100	320
SW: Overland Flow, Env	Etox./Persis./Bioacc. 5.00E+08	100	320
SW: GW to SW, DW	Tox./Persistence 1.00E+02	100	10
SW: GW to SW, HFC	Tox./Persis./Bioacc. 2.00E+05	100	56
SW: GW to SW, Env	Etox./Persis./Bioacc. 2.00E+07	100	180
Soil Exposure:Resident	Toxicity 1.00E+04	10	18
Soil Exposure: Nearby	Toxicity 1.00E+04	10	18
Air	Toxicity/Mobility 2.00E+03	100	18

* Hazardous Waste Quantity Factor Values

** Waste Characteristics Factor Category Values

Note: SW = Surface Water
GW = Ground Water
DW = Drinking Water Threat
HFC = Human Food Chain Threat
Env = Environmental Threat